

Application No. 10/066,019

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1 1. (previously amended) A crosspoint switch integrated circuit comprising:
 - 2 an array of input ports;
 - 3 an array of output ports;
 - 4 a switch matrix configured to selectively connect said input ports
 - 5 to said output ports for conducting electrical signals therebetween; and
 - 6 equalization circuitry coupled to at least partially offset trans-
 - 7 mission losses experienced by said electrical signal while external to said
 - 8 crosspoint switch integrated circuit, said equalization circuitry being
 - 9 configured to measure jitter within said electrical signals and to utilize jitter
 - 10 measurements as a basis for offsetting said transmission losses, said
 - 11 equalization circuitry being responsive to said jitter measurements to
 - 12 automatically select levels of equalization.
- 1 2. (cancelled)
- 1 3. (original) The crosspoint switch integrated circuit of claim 1 wherein said
 - 2 equalization circuitry includes a plurality of adjustable equalizers, said
 - 3 adjustable equalizers each having adjustable filtering characteristics within a
 - 4 fixed number of equalization settings.
- 1 4. (original) The crosspoint switch integrated circuit of claim 3 wherein each
 - 2 said adjustable equalizer includes a plurality of switchable connections which
 - 3 individually adjust said filtering characteristics when activated.

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1 5. (original) The crosspoint switch integrated circuit of claim 4 wherein each
2 said switchable connection includes a switch, at least some of said switchable
3 connections including at least one component which significantly affects said
4 filtering characteristics when said switchable connections are individually
5 activated.

1 6. (original) The crosspoint switch integrated circuit of claim 5 wherein at
2 least some of said switchable connections are arranged in electrical parallel
3 and said components include capacitors and resistors.

1 7. (original) The crosspoint switch integrated circuit of claim 5 wherein at
2 least some of said switchable connections are arranged in electrical parallel
3 and said components include an inductor and a resistor.

1 8. (original) The crosspoint switch integrated circuit of claim 5 wherein said
2 switches are transistors and said components include at least some of
3 resistors, capacitors, or inductors.

1 9. (original) The crosspoint switch integrated circuit of claim 4 wherein
2 adjustable equalizers are coupled to said input ports in one-to-one
3 correspondence.

1 10-18. (cancelled)

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1 19. (currently amended) A method of providing equalization for a crosspoint
2 switch formed on an integrated circuit chip ~~switch~~ comprising:
3 determining signal characteristics related to signal transmissions
4 via each of a plurality of ports of said crosspoint switch, including providing
5 on-chip measurements of jitter of electrical signals, wherein said jitter is
6 induced by off-chip conditions; and
7 setting equalization circuitry housed within said crosspoint
8 switch such that each said port has filtering characteristics tailored on a
9 basis of said signal characteristics for said signal transmissions via said
10 each port, said setting being automated and being at least partially based on
11 said on-chip measurements of jitter.

1 20. (previously presented) The method of claim 19 wherein said step of
2 setting includes selectively activating and deactivating switching devices
3 which introduce parallel connections of resistances and capacitances within
4 said equalization circuitry, said equalization circuitry being a plurality of
5 adjustable equalization circuits.

1 21. (previously presented) The method of claim 19 wherein said step of
2 setting includes selectively activating and deactivating switching devices
3 which introduce series connections of resistances and inductances within said
4 equalization circuits.

1 22. (original) The method of claim 19 wherein said step of setting includes
2 activating adaptive equalization circuitry.

1 23-24. (cancelled)

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1 25. (previously presented) The crosspoint switch integrated circuit of claim 1
2 wherein said equalization circuitry includes a multiplexer connected to a jitter
3 measurement component for providing said jitter measurements, said
4 multiplexer being connected to receive said electrical signals from each of
5 said input ports and being operatively associated with said jitter measurement
6 component to enable said jitter measurements on a port-by-port basis.

1 26. (previously presented) The crosspoint switch integrated circuit of
2 claim 25 wherein said jitter measurement component includes a phase-locked
3 loop for tracking data transactions within said electrical signals, said jitter
4 measurement component further including a voltage-controlled oscillator
5 connected to be responsive to operations of said phase-locked loop.

1 27. (previously presented) The crosspoint switch integrated circuit of claim 1
2 wherein said equalization circuitry is configured to recurrently execute said
3 jitter measurements and recurrently execute responsive selection of said
4 levels of equalization for individual said input ports, thereby enabling said
5 levels of equalization to track variations in said transmission losses.